

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 80 to 100 Volts CURRENT 5.0 Amperes

FEATURES

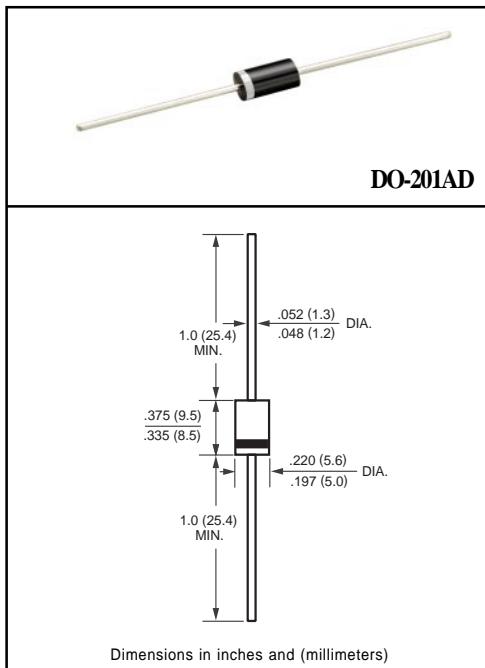
- * Fast switching
- * Low switching noise
- * Low forward voltage drop
- * High current capability
- * High switching capability
- * High reliability
- * High surge capability

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: Device has UL flammability classification 94V-0
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight: 1.18 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
 Single phase, half wave, 60 Hz, resistive or inductive load.
 For capacitive load, derate current by 20%.



MAXIMUM RATINGS (At TA = 25°C unless otherwise noted)

RATINGS	SYMBOL	SR580	SR590	SR5100	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	80	90	100	Volts
Maximum RMS Voltage	VRMS	56	63	70	Volts
Maximum DC Blocking Voltage	Vdc	80	90	100	Volts
Maximum Average Forward Rectified Current .375 (9.5mm) lead length at TL=90 °C	IO		5.0		Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM		150		Amps
Typical Thermal Resistance (Note 1)	RθJA		18		°C/W
Typical Junction Capacitance (Note 2)	CJ		200		pF
Operating Temperature Range	TJ		150		°C
Storage Temperature Range	TSTG		-55 to + 150		°C

ELECTRICAL CHARACTERISTICS (At TA = 25°C unless otherwise noted)

CHARACTERISTICS	SYMBOL	SR580	SR590	SR5100	UNITS
Maximum Instantaneous Forward Voltage at 5.0A DC	VF		.81		Volts
Maximum Average Reverse Current at Rated DC Blocking Voltage @ TA = 25°C	IR		10		mA

NOTES : 1. Thermal Resistance (Junction to Ambient): Vertical PC Board Mounting, 0.5" (12.7mm) Lead Length.
 2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

RATING AND CHARACTERISTIC CURVES (SR580 THRU SR5100)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

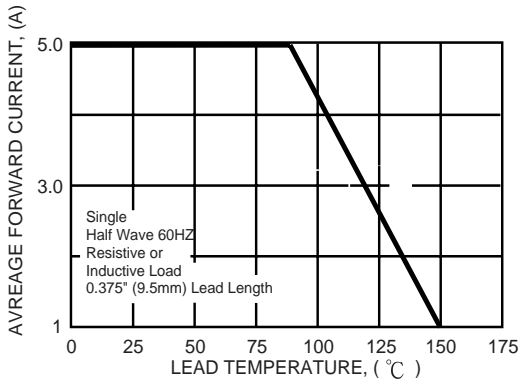


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

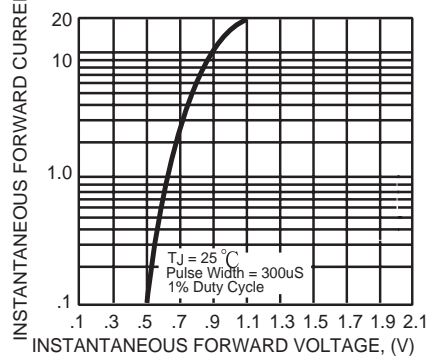


FIG. 3A - TYPICAL REVERSE CHARACTERISTICS

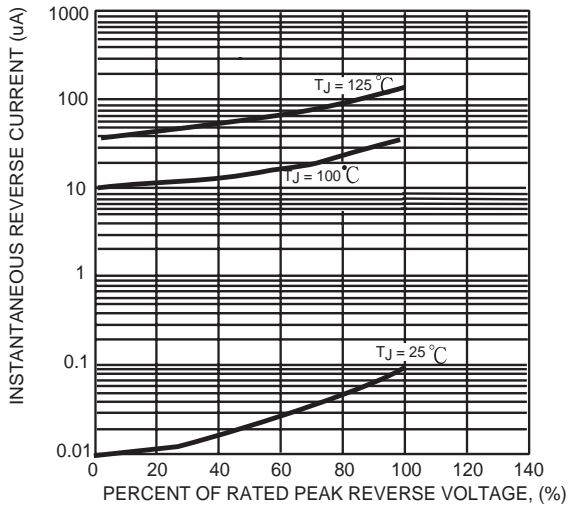


FIG. 4 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

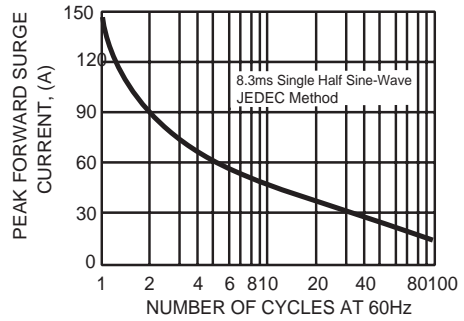


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

